

REMARKS/ARGUMENT

Claims 1, 2, 6 and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Blumenthal (US 5,861,774). Applicants respectfully traverse this rejection, as set forth below.

In proceedings before the Patent and Trademark Office, "the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art". In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (citing In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). "The Examiner can satisfy this burden **only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references**", In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)(citing In re Lahu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)).

Similarly, "obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, **absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined ONLY if there is some suggestion or incentive to do so.**" ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

Similarly, although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.** In re Gordon, 733 F.2d at 902, 221 USPQ at 1127.

Moreover, it is impermissible to use the claimed invention as an instruction manual or **"template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious.** In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985).

Independent Claim 1 requires and positively recites, a low noise amplifier circuit comprising: "an attenuator for receiving a calibration signal and generating an attenuated calibration signal", "a **low noise** amplifier for amplifying the attenuated calibration signal in calibration mode or a functional signal in functional mode", "a comparator for comparing the **calibration signal** with the output of the low noise amplifier in calibration mode and generating a compensation signal indicating a deviation between the actual gain of the low noise amplifier and a desired gain" and "**circuitry for adjusting the gain of the low noise amplifier responsive to the compensation signal**".

Independent Claim 6 requires and positively recites, a method of controlling the gain of a low noise amplifier circuit comprising: "attenuating a calibration signal to produce an attenuated calibration signal", "amplifying the attenuated calibration signal with the **low noise** amplifier to produce a reference signal", "comparing the **calibration signal** with the reference signal **and generating a compensation signal responsive to the comparison**, indicating a deviation between the actual gain of the low noise amplifier and a desired gain" and "**adjusting the gain of the low noise amplifier responsive to the compensation signal**".

In contrast, Blumenthal discloses a Built-In Self-Test (BIST) circuit and test method for automated testing of a programmable analog gain stage (ABSTRACT, lines 1-3). No where does Blumenthal teach or suggest that amplifier 304 is a "low noise" "a

low noise amplifier for amplifying the attenuated calibration signal in calibration mode or a functional signal in functional mode”, as required by Claim 1 OR “amplifying the attenuated calibration signal with the **low noise** amplifier to produce a reference signal”, as required by Claim 6.

Moreover, assuming, arguendo, that VBIST is a calibration signal, nowhere does Blumenthal teach or suggest that comparator 312 compares VBIST with any other signal – much less with the output of amplifier 304. As such, Blumenthal fails to teach or suggest, “a comparator for comparing the **calibration signal** with the output of the low noise amplifier in calibration mode and generating a compensation signal indicating a deviation between the actual gain of the low noise amplifier and a desired gain”, as further required by Claim 1, OR “comparing the **calibration signal** with the reference signal **and generating a compensation signal responsive to the comparison**, indicating a deviation between the actual gain of the low noise amplifier and a desired gain”, as further required by Claim 6.

Furthermore, there is no teaching or suggestion in Blumenthal for any kind of circuitry for adjusting the gain of amplifier 304. As such, Blumenthal fails to teach or suggest, “**circuitry for adjusting the gain of the low noise amplifier responsive to the compensation signal**”, as further required by Claim 1, OR “**adjusting the gain of the low noise amplifier responsive to the compensation signal**”, as required by Claim 6.

In light of the above arguments, the Examiner has failed to consider all of the words of Claims 1 and 6 as is required by law. Further, even were the Examiner to have considered all of the words of the claims, he has not set forth a prima facie case of obviousness of Claims 1 and 6. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.** In re Gordon, 733 F.2d at 902,

221 USPQ at 1127. Moreover, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985). The Examiner has set forth no evidence whatsoever that one having skill in the art at the time of the invention would have considered the Blumenthal reference relevant to the present invention. Even had such evidence been provided, the Examiner has provided no evidence from the prior art suggesting such modification. As such, the 35 U.S.C. 103(a) rejection of Claims 1 and 6 is improper and must be withdrawn.

Claims 2 and 7 stand allowable as depending (directly or indirectly) from allowable claims and by including further limitations not taught or suggested by the reference of record.

Claim 2 further defines the low noise amplifier circuit of claim 1 wherein the attenuator attenuates the calibration signal by $-G$ dB, where G dB is the desired gain of the low noise amplifier. Claim 2 is allowable for the same reasons set forth above in support of the allowance of Claim 1. Moreover, the Examiner has provided no evidence that Blumenthal teaches or suggest that ATTEN 310 attenuates VBIST by $-G$ dB, where G dB is the desired gain of the low noise amplifier. As such, the 35 U.S.C. 103(a) rejection of Claim 2 is improper and must be withdrawn.

Claim 7 further defines the method of claim 6 wherein the attenuating step comprises the step of attenuating the calibration signal by $-G$ dB, where G dB is the desired gain of the low noise amplifier. Claim 7 is allowable for the same reasons set



forth above in support of the allowance of Claim 6. Moreover, the Examiner has provided no evidence that Blumenthal teaches or suggest that ATTEN 310 attenuates VBIST by $-G$ dB, where G dB is the desired gain of the low noise amplifier. As such, the 35 U.S.C. 103(a) rejection of Claim 7 is improper and must be withdrawn.

Applicants appreciate the Examiner's determination that Claims 3-5 and 8-10 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants submit, however, that Claims 3-5 and 8-10 are allowable in their current form.

Claims 1-10 are allowable over the references of record. Applicants respectfully request allowance of the application at the earliest possible date.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Ron O. Neerings".

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